

FIG. 1

Copy view 100%

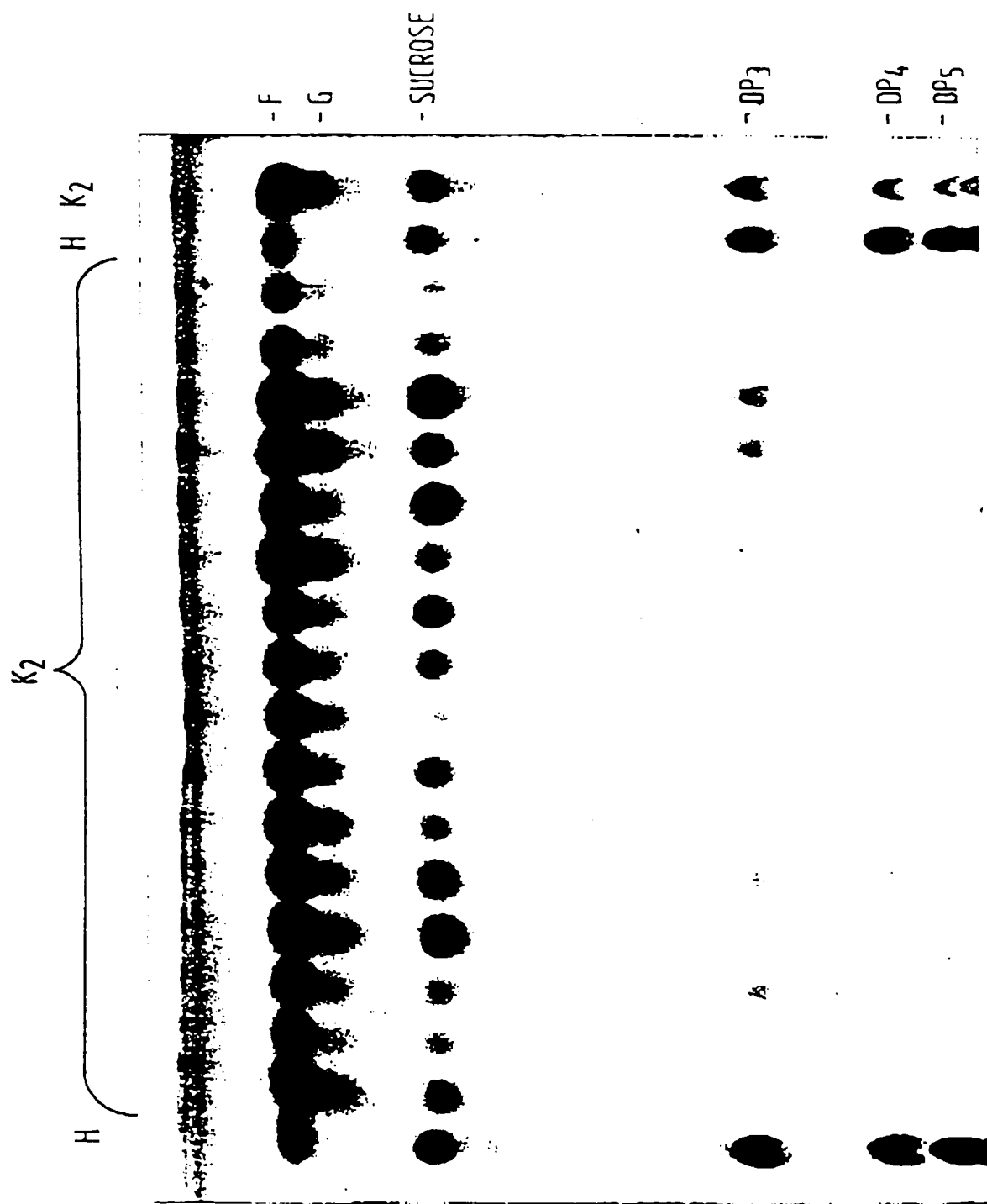


FIG. 2

# SDS-PAGE VAN SST UIT UIENZAAD

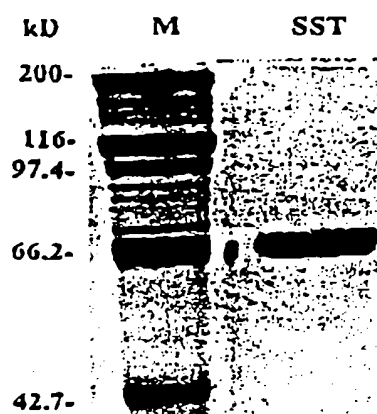
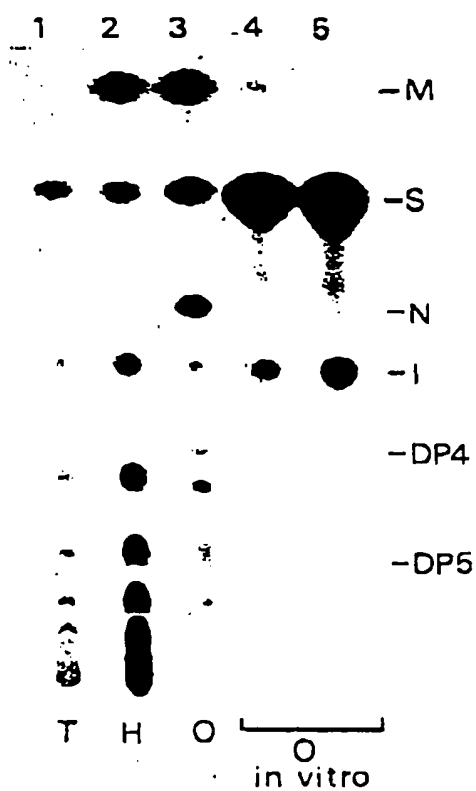


FIG. 3

FIG. 4

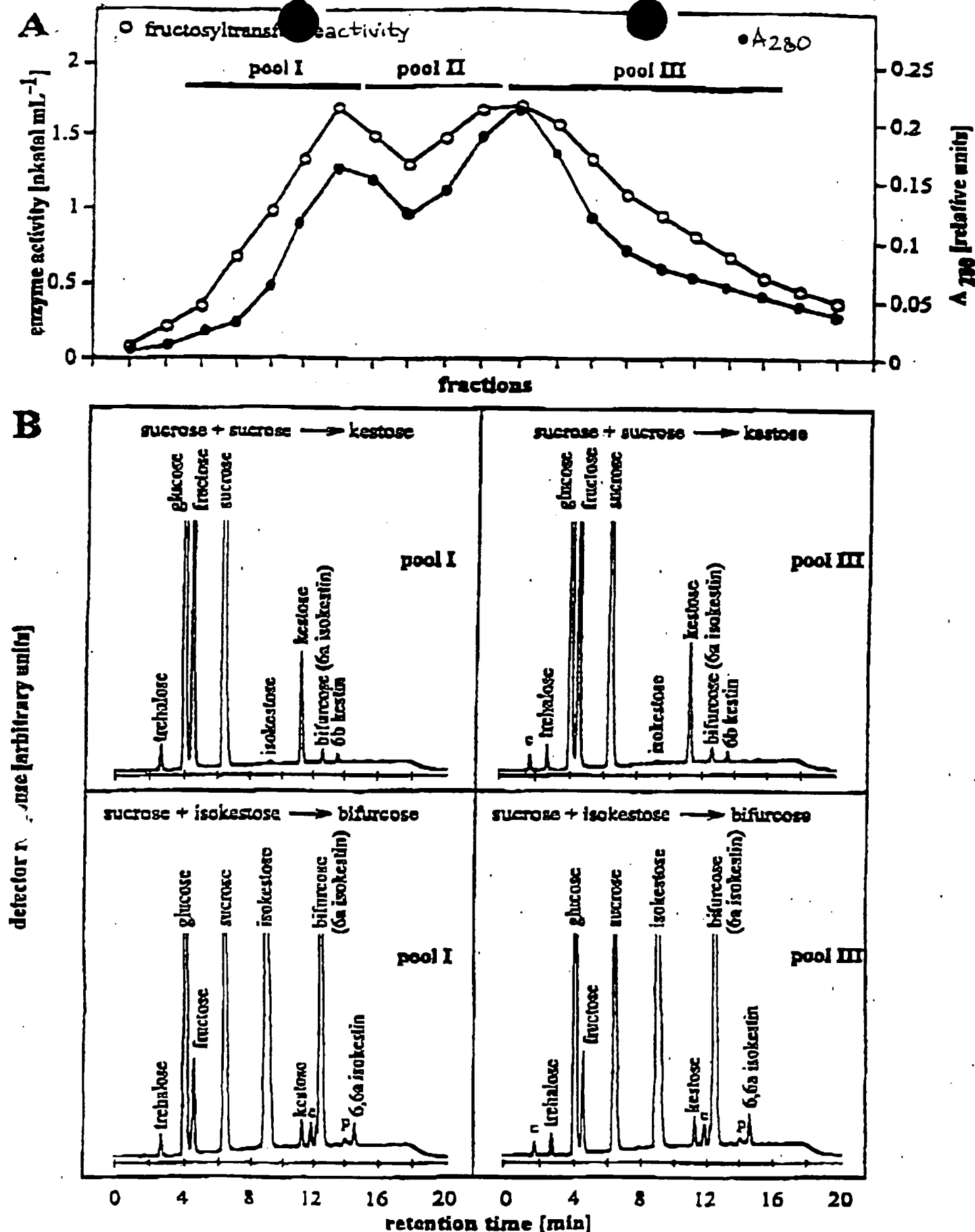


Fig. 5

Fig 2

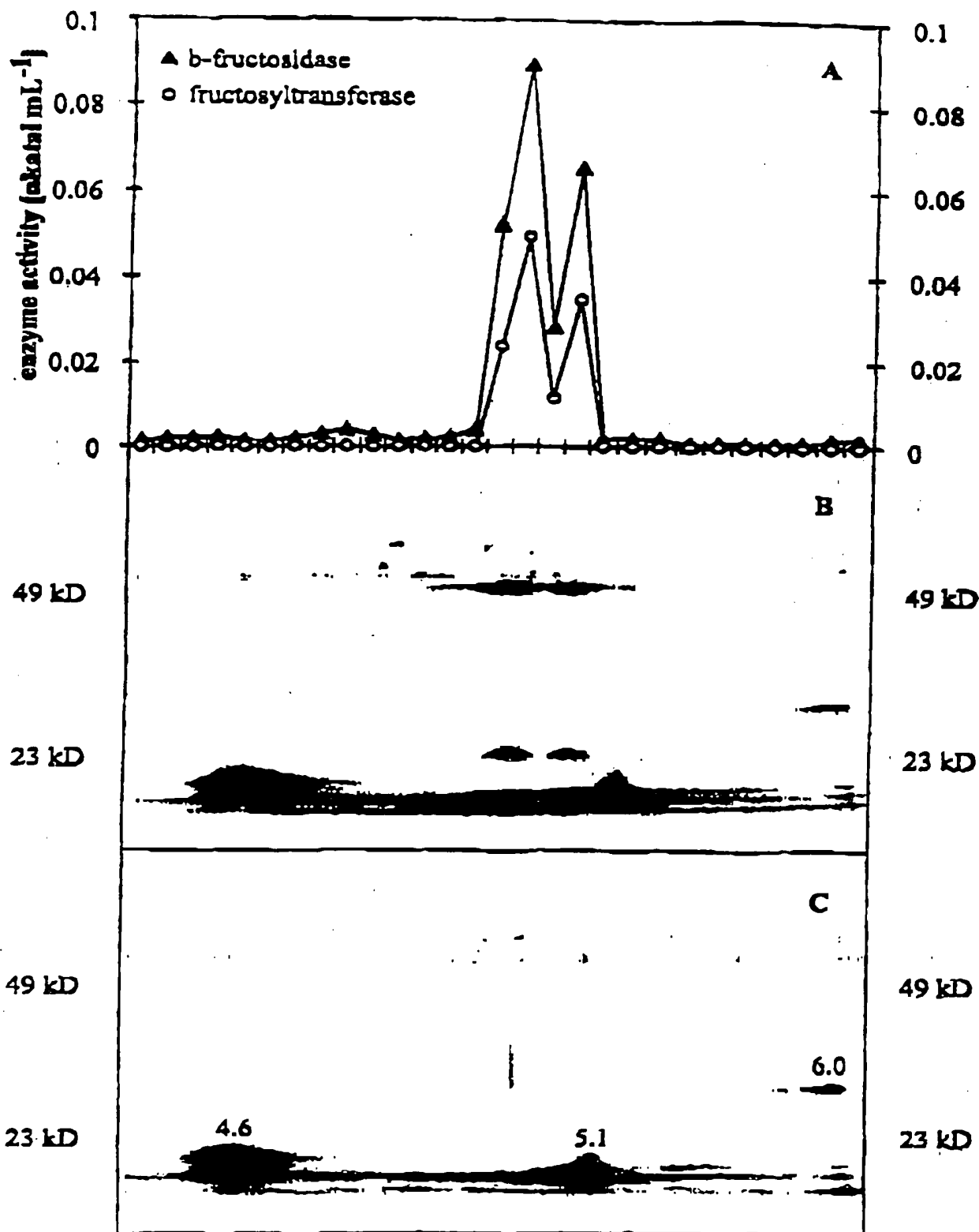
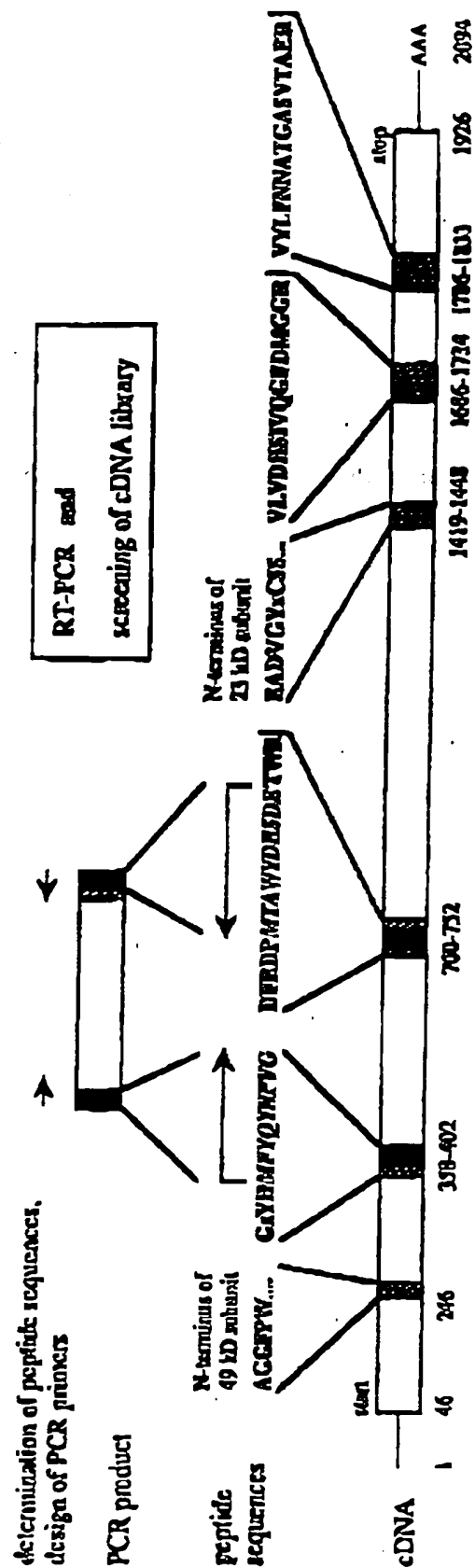


Fig. 6

Fig. 7



# Appendix

Sequence of cDNA encoding 6-SFT from barley

GCTCAGAATCTACCAAACCCCTCTCGGAGTTGACGAGCGGCGCCGCATGGGGTCCACACGGC  
MetGlySerHisGly

AAGCCACCGCTACCGTACGCCTACAAGCCGCTGCCCTCGGACGCGCGCCGACGGTAAGCGG  
LysProProLeuProTyrAlaTyrLysProLeuProSerAspAlaAlaAspGlyLysArg

ACCGCTGCATGAGGTGGTCCGCGTGTGCCACCGTGTGACGGCCCTCGGCCATGGCGGTG  
ThrGlyCysMetArgTrpSerAlaCysAlaThrValLeuThrAlaSerAlaMetAlaVal

GTGGTGGTGGCGGCCACGCTCCTGGCGGGATTGAGCATGGAGCAGGCCGTGGACGAGGAG  
ValValValGlyAlaThrLeuLeuAlaGlyLeuArgMetGluGlnAlaValAspGluGlu

GCGGCGCGCGCGGGTTCCTGGAGCAACGAGATCCTGCACTGGCGAGCGCGACGGGTTAC  
AlaAlaAlaGlyGlyPheProTrpSerAsnGluMetLeuGlnTrpGlnArgSerGlyTyr

CATTTCCAGACGGCCAGAAGTACATGAGCGATCCCAACGGCCTGATGTATTACCGTGGG  
HisPheGlnThrAlaLysAsnTyrMetSerAspProAsnGlyLeuMetTyrTyrArgGly

TGGTACCACATGTTCTACCACTACAACCGGTGGGCACCGACTGGGACGACGGCATGGAG  
TrpTyrHisMetPheTyrGlnTyrAsnProValGlyThrAspTrpAspAspGlyMetGlu

TGGGGCCACGGCGTGTCCCGGAACCTTGTCCAATGGCGCACCTCCCTATCGCCATGGTG  
TrpGlyHisAlaValSerArgAsnLeuValGlnTrpArgThrLeuProIleAlaMetVal

GCCGACCACTGGTACGACATCCTCGAAGTCTCTCGGGCTCCATGACGGTGCTACCCAAC  
AlaAspGlnTrpTyrAspIleLeuGlyValLeuSerGlySerMetThrValLeuProAsn

GGGACGGTCATCATGATCTACACGGGCGCCACCAACGGCCTCCCGCGTGGAGGTCCAGTGC  
GlyThrValIleMetIleTyrThrGlyAlaThrAsnAlaSerAlaValGluValGlnCys

ATCGCCACCCCGCGCGACCCCAACGACCCCTCCTCCCGCGGTGGACCAAGCACCCCGCC  
IleAlaThrProAlaAspProAsnAspProLeuLeuArgArgTrpThrLysHisProAla

AACCCCGTCATCTGGTCCCGCGCGGGGTGGGCACCAAGGATTTCCGAGACCCGATGACC  
AsnProValIleTrpSerProProGlyValGlyThrLysAspPheArgAspProMetThr

GCCTGGTACGACGAGTCCGACGAGACATGGCGCACCTCCTCGGGTCCAAGGACGACCAC  
AlaTrpTyrAspGluSerAspGluThrTrpArgThrLeuLeuGlySerLysAspAspHis

GACGGCCACCAACGACGGCATCGCCATGATGTACAAGACCAAGGACTTCCTCACTACGAG  
AspGlyHisHisAspGlyIleAlaMetMetTyrLysThrLysAspPheLeuAsnTyrGlu

CTCATCCCGGGCATCTTGACCGGGTGGTGGCGACCGCGAGTGGGAGTGCATCGACTTC  
LeuIleProGlyIleLeuHisArgValValArgThrGlyGluTrpGluCysIleAspPhe

TACCCCGTCCGCGGAGAGACGACGACAACTCGTCGGAGATGCTGCACGTGTTGAAGGCG  
TyrProValGlyArgArgSerSerAspAsnSerSerGluMetLeuHisValLeuLysAla

AGCATGGACGACGAACCGCACGACTACTACTCGCTGGGCACGTACGACTCGGCGGCCAAC  
SerMetAspAspGluArgHisAspTyrTyrSerLeuGlyThrTyrAspSerAlaAlaAsn

ACGTGGACGCGCCATCGACCCGGAGCTCGACTTGGGGATCGGGCTGAGATACGACTGGGGA  
ThrTrpThrProIleAspProGluLeuAspLeuGlyIleGlyLeuArgTyrAspTrpGly

AAGTTTTATGCGTCCACCTCCTTCTATGATCCCGCCAAGAACCGCGCGTGCTCATGGGG  
LysPheTyrAlaSerThrSerPheTyrAspProAlaLysAsnArgArgValLeuMetGly

TACGTGGCGGAGGTCCGACTCCAAGCGGGCTGATGTCTCAAGGGATGGGCTTCATTGAG  
TyrValGlyGluValAspSerLysArgAlaAspValValLysGlyTrpAlaSerIleGln

TCAGTTCCTAGGACGGTGGCTCTGGATGAGAAGACCCGGACGAACCTCCTGCTCTGGCCC  
SerValProArgThrValAlaLeuAspGluLysThrArgThrAsnLeuLeuLeuTrpPro

GTTGAGGAGATCGAGACCCTCCGCTCAATGCCACGGAAGTACCGACGTTACCATTAAC

Fig. 8

ValGluGluIleGluThrLeuArgLeuAsnAlaThrGluLeuThrAspValThrIleAsn  
ACTGGCTCCGTCATCCATATCCCGCTCCGCCAAGGCACTCAGCTCGACATGCGGAGGCC  
ThrGlySerValIleHisIleProLeuArgGlnGlyThrHisAlaArgHisAlaGluAla  
TCTTCCACCTTGATGCTTCCGCGGTGGCTGCCCTCAACGAGGCCGATGTGGGCTACAAC  
SerPheHisLeuAspAlaSerAlaValAlaAlaLeuAsnGluAlaAspValGlyTyrAsn  
TGCACTAGCAGCGCGCGCGCTGTTAACCGCGCGCGCTAGGCCCTTCGGCCTCCTCGTC  
CysSerSerSerGlyGlyAlaValAsnArgGlyAlaLeuGlyProPheGlyLeuLeuVal  
CTCGCCGCGGTGACCGCGGTGGCGAGCAAACGGCGGTCTACTTCTACGTCTCTAGGGC  
LeuAlaAlaGlyAspArgArgGlyGluGlnThrAlaValTyrPheTyrValSerArgGly  
CTTGACGGAGGCTCCACACAGCTTCTGCCAAGATGAGCTGAGATCGTCACGAGCCAAG  
LeuAspGlyGlyLeuHisThrSerPheCysGlnAspGluLeuArgSerSerArgAlaLys  
GATGTGACCAAGCGTGTCTCGGGAGCACGGTGGCGGTGCTCGACGGTGAGGCTTGTCTCA  
AspValThrLysArgValIleGlySerThrValProValLeuAspGlyGluAlaLeuSer  
ATGAGGGTGCTCGTGGATCACTCCATCGTGCAGGGCTTCGACATGGGCGGGAGGACCAG  
MetArgValLeuValAspHisSerIleValGlnGlyPheAspMetGlyGlyArgThrThr  
ATGACCTCGCGGGTGACCGATGGAGTGTATCAGGAGGCAAGAGTCTACTTGTTC AAC  
MetThrSerArgValTyrProMetGluSerTyrGlnGluAlaArgValTyrLeuPheAsn  
AACGCCACCGGTGCCAGCGTGACCGCGCAAAGGCTGGTGGTGCACGAGATGGACTCGGCA  
AsnAlaThrGlyAlaSerValThrAlaGluArgLeuValValHisGluMetAspSerAla  
CACAAACCAGCTCTCCAATGAGGACGATGGCATGTATCTTCATCAAGTCTTGAATCTCGT  
HisAsnGlnLeuSerAsnGluAspAspGlyMetTyrLeuHisGlnValLeuGluSerArg  
CATTAAAGCTACATTGGATCAAGAAGATCACCAGGGAAAGGCCAATTCATACATAAAT  
His  
CGAATCATTCTGCACAACCTCGCTTGCAGCATGCATTGAAACATCTGTATTTGGATCATC  
TTCTTCATTTATGTCATAGTGAAGTATATTACTTTGTAAAAAAAAAAAAAAAAAAAA

Fig. 9

	86	115	125	132	157	164	220	229	280	290	343	353
H. V. 6sft	HFQtaKQNY. MEdPnGLMY. . YrGvYHtFYQYNP	MEWGHAVS			..LSGRTVL	DERDPmTAWY			eWECIDFYPVg		DwGK. FYASTsf	
V. I. Inv	HFQPEKMW. MNDPnGPY. . YKGNVHtFYQYNP	IVWGHAVS			..WtGSATIL	DPREDTTANL			MWECvOFFPVS		DYGi. FYASKtF	
D. C. Inv	HFQPNqNW. MNDPnGPf. . YKGNVHtFYQYNP	IVWGHAVS			..WtGSATIL	DERDETTANL			MWECvDFYPVS		DYCK. FYASKtF	
L. e. Inv	HFQPNqNW. MNDPnGPf. . YKGNVHtFYQYNP	IVWGHAVS			..WtGSATIL	DERDETTANL			MWECvDFYPVS		DYCK. FYASKtF	
D. C. CuiInv	HFQPNqNW. MNDPnGPf. . YKGNVHtFYQYNP	IVWGHAVS			..WtGSATIL	DERDETTANL			MWECvDFYPVS		DYCK. FYASKtF	
A. s. Inv	HFQPNqNW. MNDPnGPf. . YKGNVHtFYQYNP	IVWGHAVS			..WtGSATIL	DERDETTANL			MWECvDFYPVS		DYCK. FYASKtF	
E. C. Inv	HFQPNqNW. MNDPnGPf. . YKGNVHtFYQYNP	IVWGHAVS			..WtGSATIL	DERDETTANL			MWECvDFYPVS		DYCK. FYASKtF	
S. m. Scrib	HFQPNqNW. MNDPnGPf. . YKGNVHtFYQYNP	IVWGHAVS			..WtGSATIL	DERDETTANL			MWECvDFYPVS		DYCK. FYASKtF	
B. p. lela	HFQPNqNW. MNDPnGPf. . YKGNVHtFYQYNP	IVWGHAVS			..WtGSATIL	DERDETTANL			MWECvDFYPVS		DYCK. FYASKtF	
B. s. Sacc	HFQPNqNW. MNDPnGPf. . YKGNVHtFYQYNP	IVWGHAVS			..WtGSATIL	DERDETTANL			MWECvDFYPVS		DYCK. FYASKtF	
K. m. Ind	HFQPNqNW. MNDPnGPf. . YKGNVHtFYQYNP	IVWGHAVS			..WtGSATIL	DERDETTANL			MWECvDFYPVS		DYCK. FYASKtF	
S. C. Inv1	HFQPNqNW. MNDPnGPf. . YKGNVHtFYQYNP	IVWGHAVS			..WtGSATIL	DERDETTANL			MWECvDFYPVS		DYCK. FYASKtF	
S. O. Inv	HFQPNqNW. MNDPnGPf. . YKGNVHtFYQYNP	IVWGHAVS			..WtGSATIL	DERDETTANL			MWECvDFYPVS		DYCK. FYASKtF	
A. n. Inv	HFQPNqNW. MNDPnGPf. . YKGNVHtFYQYNP	IVWGHAVS			..WtGSATIL	DERDETTANL			MWECvDFYPVS		DYCK. FYASKtF	
B. a. SacB	HFQPNqNW. MNDPnGPf. . YKGNVHtFYQYNP	IVWGHAVS			..WtGSATIL	DERDETTANL			MWECvDFYPVS		DYCK. FYASKtF	
B. s. SacB	HFQPNqNW. MNDPnGPf. . YKGNVHtFYQYNP	IVWGHAVS			..WtGSATIL	DERDETTANL			MWECvDFYPVS		DYCK. FYASKtF	
S. m. SacB	HFQPNqNW. MNDPnGPf. . YKGNVHtFYQYNP	IVWGHAVS			..WtGSATIL	DERDETTANL			MWECvDFYPVS		DYCK. FYASKtF	
Z. m. Levu	HFQPNqNW. MNDPnGPf. . YKGNVHtFYQYNP	IVWGHAVS			..WtGSATIL	DERDETTANL			MWECvDFYPVS		DYCK. FYASKtF	

I

III

IV

V

Fig. 10

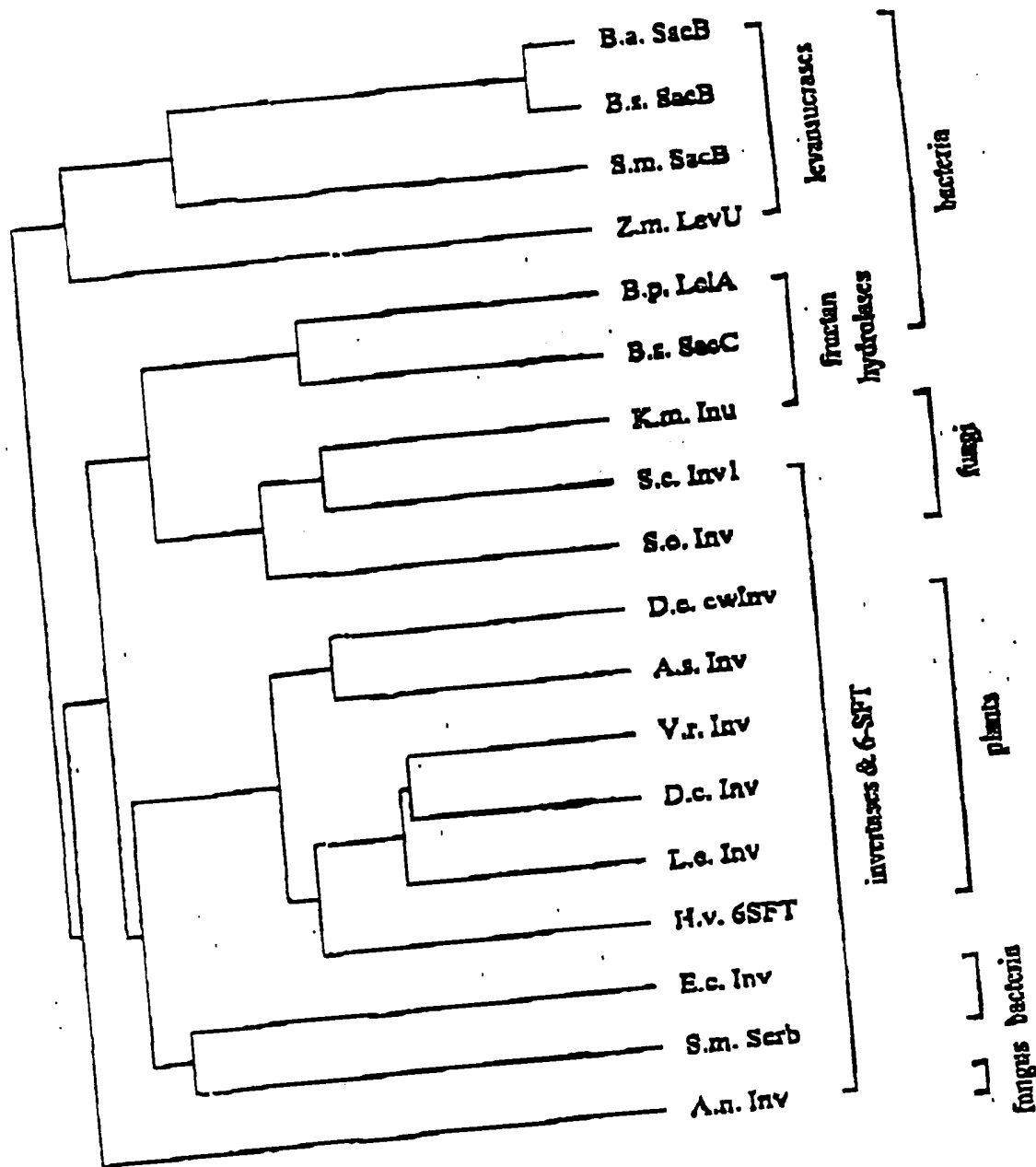
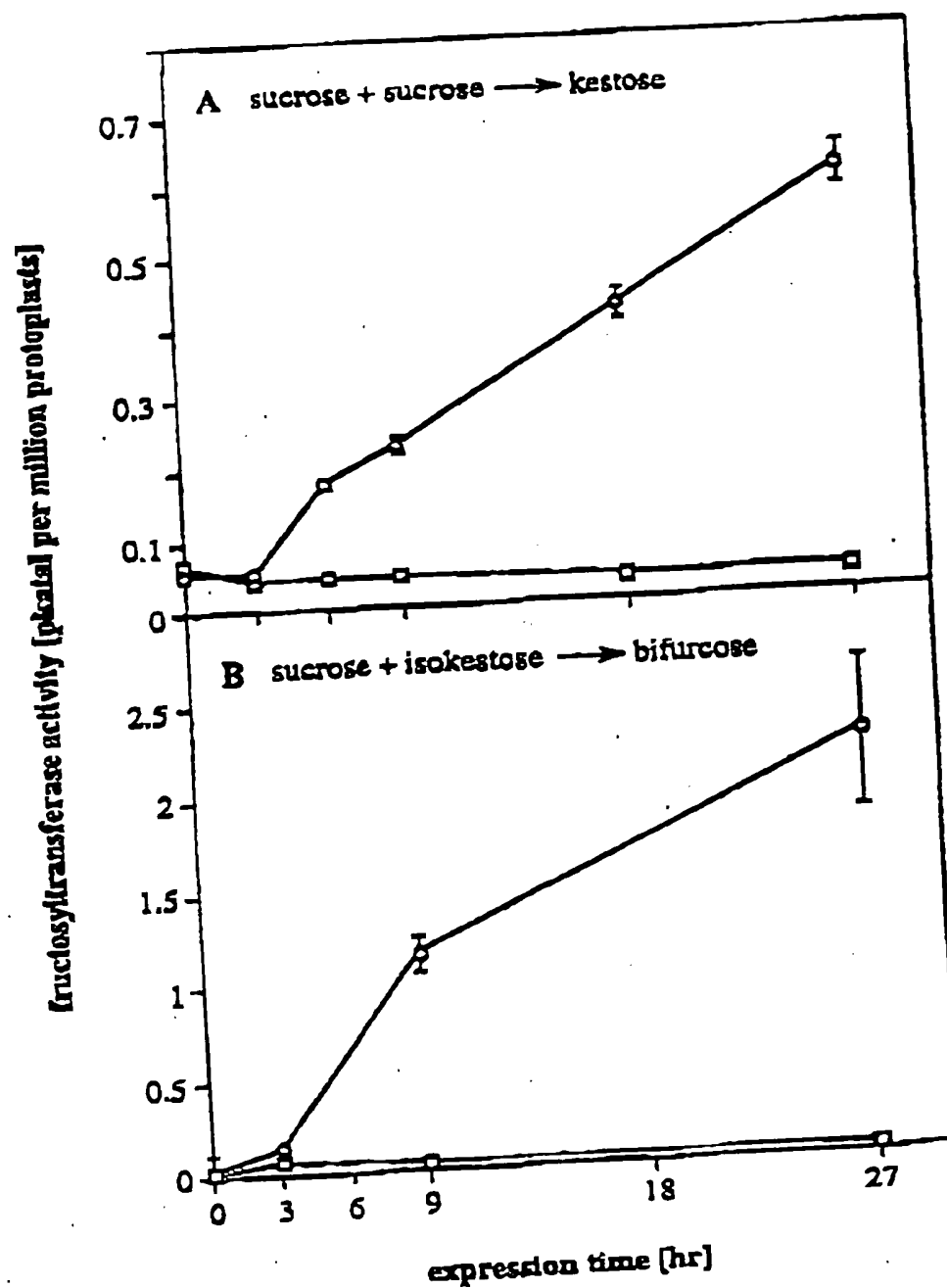


Fig. 11



A sucrose + sucrose  $\rightarrow$  kestose

**B** sucrose + isokestose  $\longrightarrow$  bifurcose

expression time [hr]

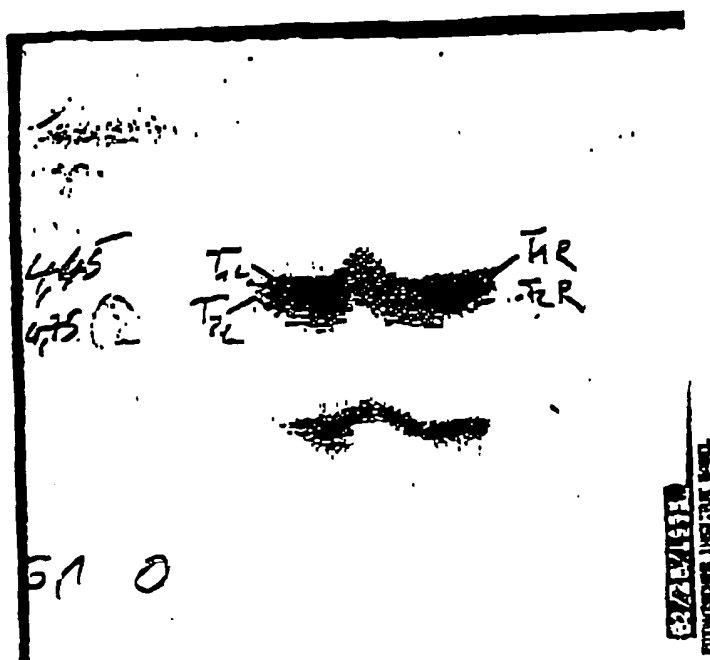


Fig. 12

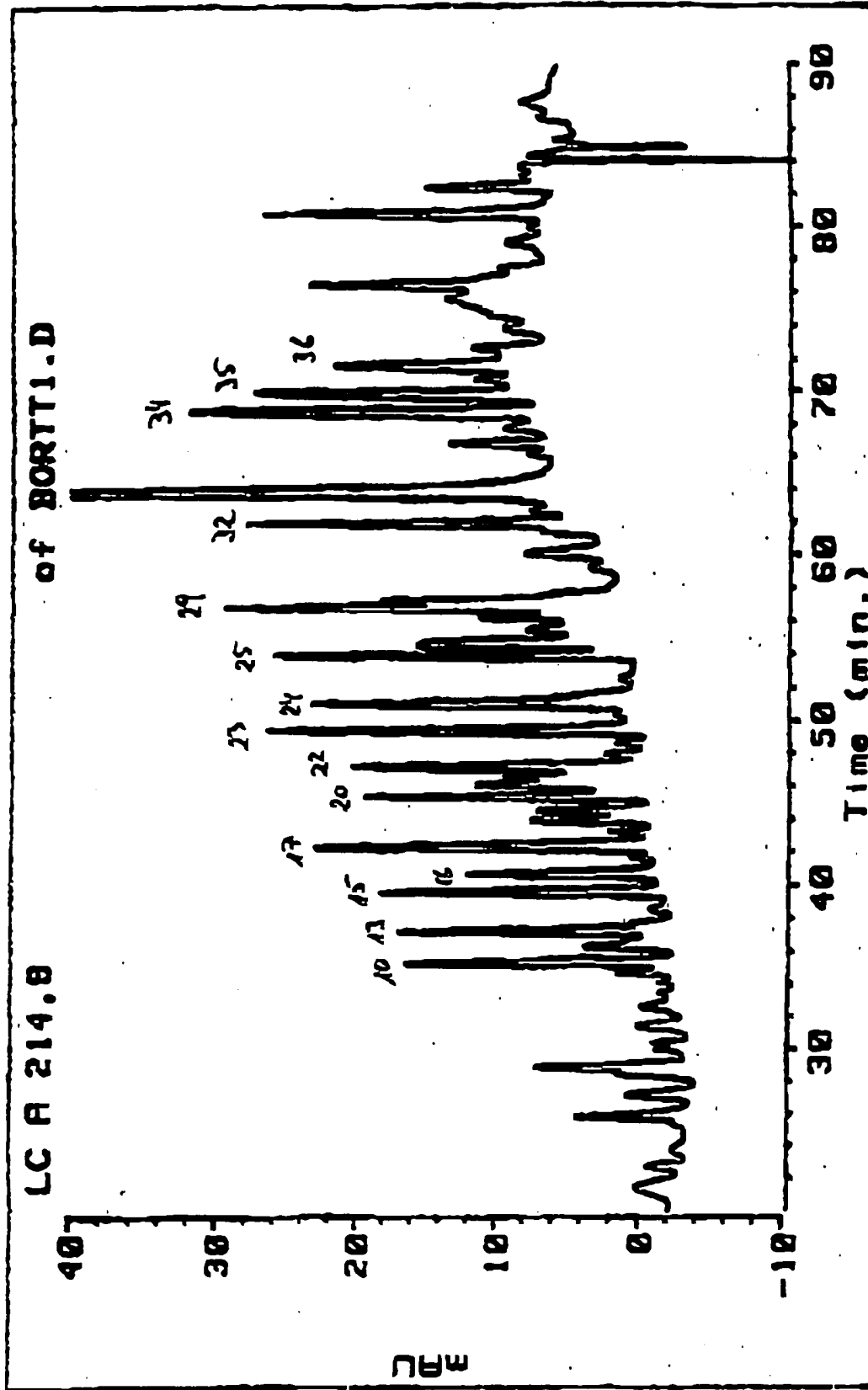


Fig. 13

1.2.35 Port 12.0 T2

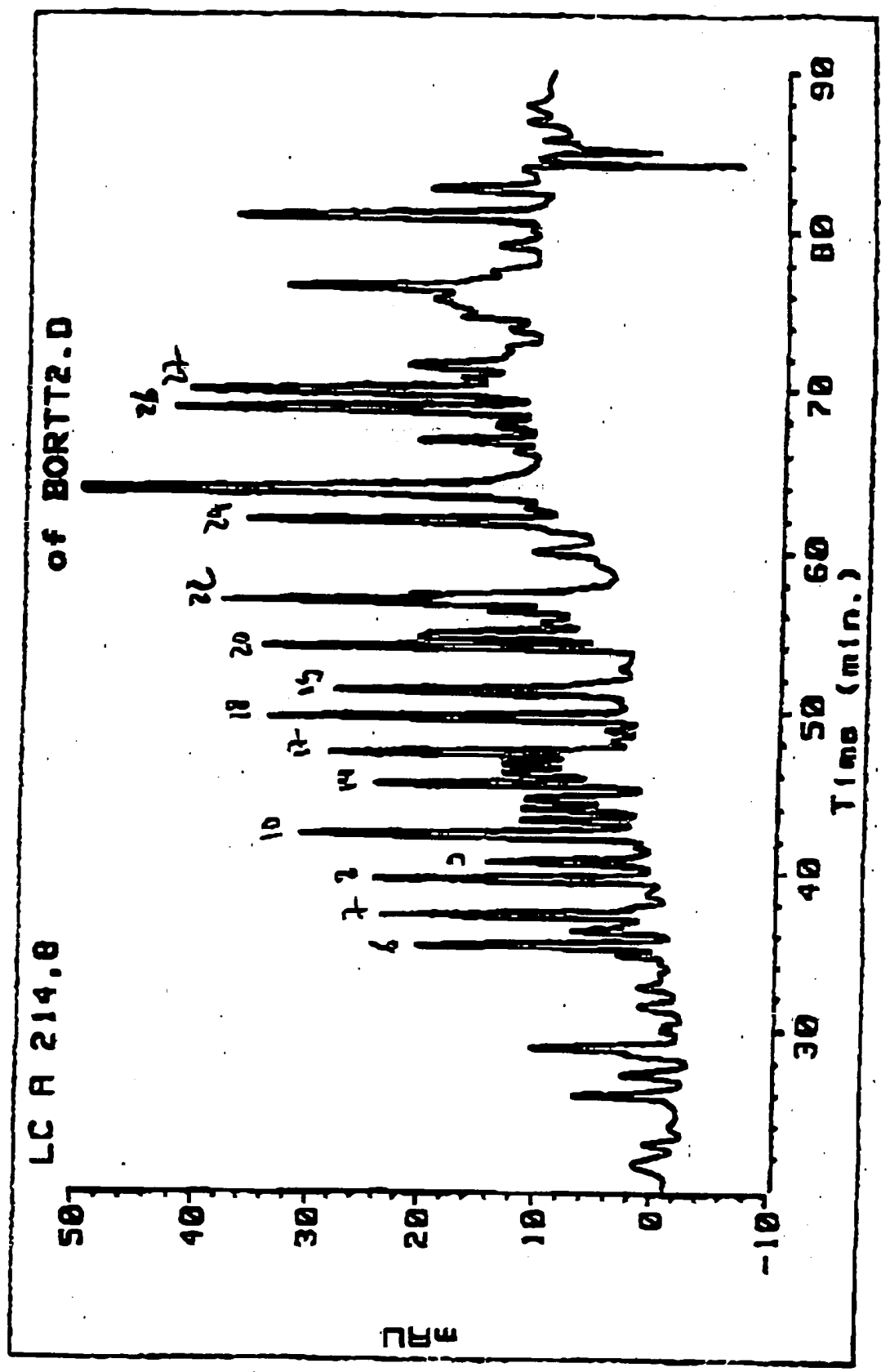


Fig. 14